

Application Serial No. 10/581,951
Reply to Office Action of August 11, 2008

PATENT
Docket: CU-4849

REMARKS

In the Office Action, dated August 11, 2008, the Examiner states that Claims 1-3 are pending and Claims 1-3 are rejected. By the present Amendment, Applicant amends the claims.

1. In the Claims, please amend Claim 1. Claim 1 has been amended to clarify that the present invention is directed to a device wherein a syringe and hollow needle are used to extract an analyte by flushing a sample of interest through the stationary phase which has a volume that is greater than that of the hollow needle. Support for this amendment can be found throughout the original disclosure, for instance on page 2. The amendments to Claim 1 can be viewed in the Amendments section of this paper in the Listing of Claims beginning on page 2. No new matter has been added.

2. **Rejection of Claim 1 under 35 U.S.C. §102(b).**

The Examiner rejected Claim 1 under 35 U.S.C. §102(b) as being anticipated by Brewer (U.S. 6,566,145) and also by Pawliszyn (U.S. 2001/0032531 A1).

The Applicant respectfully disagrees.

Brewer discloses a solid phase extraction (SPE) of analytes from a sample that is passed through a pipette tip. Claim 1 has been amended so that it is directed to a method for preparing a sample using a syringe and a hollow needle, whereby for extraction of the analyte of interest, the sample is flushed through a stationary phase that has a larger volume than that of the needle. This feature of Claim 1 is not taught or disclosed by Brewer and because Brewer does not teach all of the features of Claim 1, Claim 1 is not anticipated thereby.

Pawliszyn does not anticipate Claim 1 either. Pawliszyn discloses a syringe-like device for collecting particles polluting the air. In the Pawliszyn method, air is drawn through a trap placed in the hollow needle portion of the device. The trap consists of quartz wool or PDMS fibers. Pawliszyn does not, however, disclose the feature of the trap having a volume that is larger than that of the needle because by

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the Pawliszyn method, the trap is located within the needle. Therefore, all of the features of Claim 1 are not taught or disclosed by Pawliszyn either.

The Applicant respectfully submits that because all of the features of Claim 1, as amended, are not taught or disclosed by the alleged prior art, Claim 1 is not anticipated thereby and is novel, and request that the Examiner withdraw this ground of rejection of Claim 1.

3. Rejection of Claims 2 and 3 under 35 U.S.C. §103(a).

The Examiner asserts an obviousness rejection of Claim 2 under 35 U.S.C. § 103(a), as being unpatentable over Pawliszyn (U.S. Patent No. US 2001/0032531 A1) in view of Brewer (U.S. Patent No. 6,566,145 B2). The Examiner also asserted an obviousness rejection of Claim 3 under 35 U.S.C. § 103(a), as being unpatentable over Pawliszyn (U.S. Patent No. US 2001/0032531 A1) in view of Brewer (U.S. Patent No. 6,566,145 B2) as applied to Claim 2 and further in view of Reinhardt (U.S. Patent No. 4,849,1798). To establish *prima facie* obviousness, however, all of the limitations of a claimed invention must be taught or suggested by the prior art. MPEP 2143.

The Applicant respectfully disagrees.

The Applicant has provided Claim 2, the independent claim, with portions of interest emphasized as follows:

Claim 2

A device for carrying out the method as claimed in claim 1, comprising a syringe, and a hollow needle connected to the syringe body, wherein, **between the needle and the syringe body, a chamber is provided which is wider than the cross section of the needle and in which an extraction material is located.**

Specifically, the Applicant respectfully asserts that Pawliszyn and Brewer do not disclose that between the needle and the syringe body is located a chamber provided with a wider cross-section than that of the needle and in which the extraction material is located.

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In the Pawliszyn disclosure, the extraction material is located in the needle itself, and therefore, is provided with the same or smaller cross section than that of the needle. Additionally, the feature of a chamber is not taught or suggested by Pawliszyn either. Therefore, the feature of Claim 2 wherein the chamber is provided with a wider cross section than the needle is not taught or suggested by Pawliszyn.

The Brewer disclosure does not cure the defects found in Pawliszyn. Brewer discloses a pipette tip. The feature of a chamber is not taught or suggested by Brewer. It follows that the feature of the cross-section of the chamber being bigger than that of the needle is not taught or suggested by Brewer.

In fact, a person of skill in the art would not combine Pawliszyn and Brewer. It is very well known that sample preparation is a very wide field in which methods and equipment differ significantly depending on the type of analysis desired. Brewer discloses a completely different situation than that of the Applicant's invention wherein a sample is drawn into or expelled from a syringe through a hollow needle. For instance, it is well known in the art that the cross section of a hollow needle may be a hundred times smaller than that of a pipette tip. Furthermore, the pipette tip of Brewer can only support liquid samples. It is evident that at least for that reason, a pipette tip is known in the art to be different from a hollow needle and also explains why they may be used for different purposes. Respectfully, the Examiner's assertion that a pipette tip is "needle-like" is incorrect because, as extensively discussed above, the differences between pipette tips and hollow needles are significant and well known.

Pawliszyn deals with the so-called solid phase microextraction (SPME) but only with the collection of solids. Generally, as discussed in Pawliszyn, paragraph 8, SPME is also applicable in analysis methods for volatile compounds (TVOC's). However, the Pawliszyn disclosure does not enable this area of technology. In connection with volatile analytes, the problem which existed in the prior art was that the adsorbent in the form of a coating of the needle, was of limited efficiency. This problem is discussed in the background section of the present application. For the collection of particles of solid material this problem does not exist. Therefore, it

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could not have been obvious to one skilled in the art to add features that do not make any sense in the configuration of Pawliszyn.

A person of skill in the art would not combine Pawliszyn and Brewer at least for the reasons that are discussed extensively above, but even if they were combined, all of the features of the claims are still not taught or suggested by the combination. The Applicant respectfully asserts that because the references do not teach or suggest all of the features of Claim 2, Claim 2 is non-obvious. The references do not teach a device wherein "between the needle and the syringe body, a chamber is provided which is wider than the cross section of the needle and in which an extraction material is located". The Applicant respectfully requests that the Examiner withdraw the rejection of Claim 2.

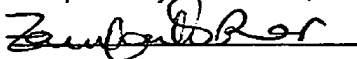
It is axiomatic that if an independent claim is allowable, then any claim depending therefrom is also allowable. Claim 3 claims the additional feature of the device having a means for heating. Reinhardt does not cure the defects found in the Pawliszyn and Brewer combination. The fact remains, therefore, that the combination of elements found in the underlying independent Claim 2 is non-obvious. Since Claim 3 depends from Claim 2 the Applicant respectfully requests that the remarks made over Claim 2 also be extended to Claim 3, and also overcome the rejection. The Applicant thus respectfully requests that the Examiner withdraw the rejection of Claims 2 and 3 under 35 U.S.C. § 103(a).

CONCLUSION

In light of the foregoing response, all the outstanding objections and rejections are considered overcome. Applicant respectfully submits that this application should now be in condition for allowance and respectfully requests favorable consideration.

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Date

Respectfully submitted,



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